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# Looking Back on 2021 and 2022 Predictions

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# Research and Insights



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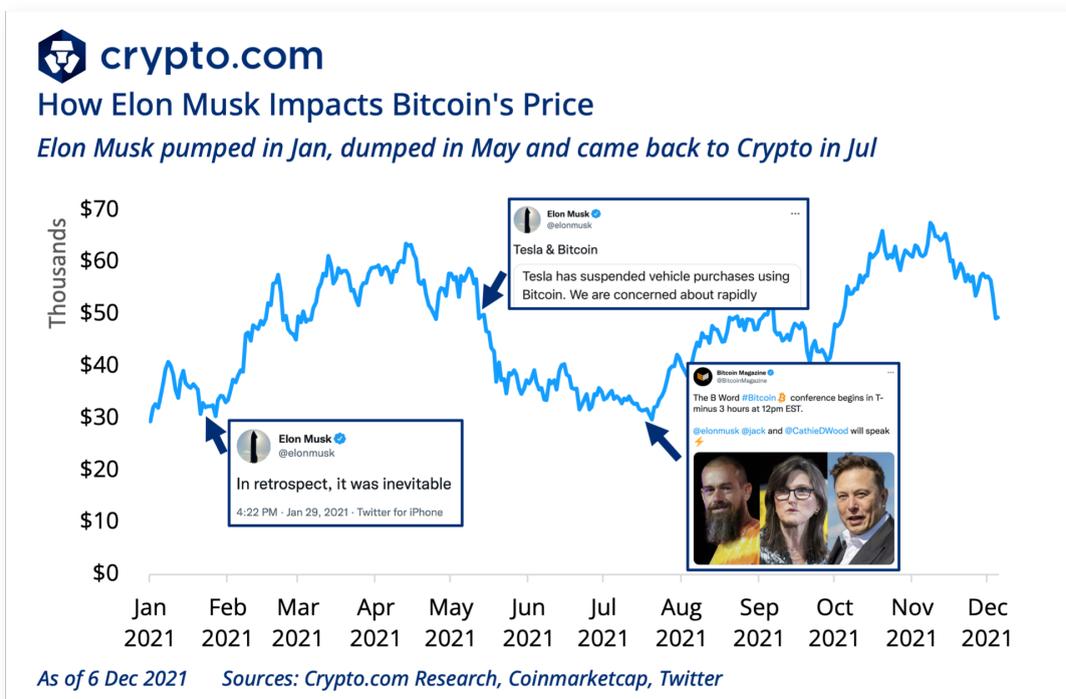
# Looking Back on 2021

Beyond all questions, 2021 has been the year of crypto. The world became more crypto-friendly and metaversed. Below, we first recap the big events of the past year, then envision the future with our 2022 predictions.

## 1. Elon Musk – the Influencer

In 2021, as the CEO of SpaceX and Tesla, Elon Musk entered into the crypto market and often tweeted about different cryptocurrencies, impacting their prices.

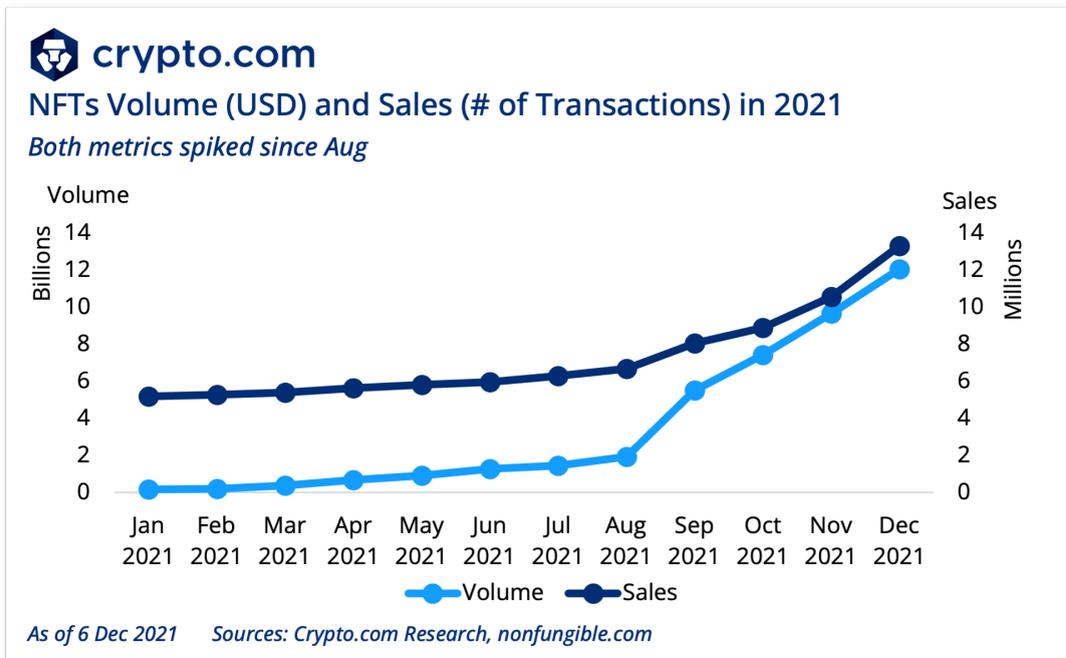
Bitcoin spiked after Elon Musk [added #Bitcoin to his Twitter bio](#) in January and Tesla [added a ton of Bitcoin to its balance sheet](#) in February, 2021. In May, he tweeted a worldwide concern about the usage of fossil fuels for Bitcoin mining, which [led to a price drop](#). Interestingly, the crypto market turned around in July, as Elon expressed his supportive stance on crypto and also first mentioned he held Ethereum in his portfolio during the [‘The B Word’](#) conference with Jack Dorsey and Cathie Wood.



## 2. NFT Mania

The concept of NFTs originally aimed to distinguish each token with unique parameters. This type of token can be bound with virtual/digital properties as unique identifiers. With NFTs, all marked properties can be freely traded with customised values according to their ages, rarity, liquidity, etc. Various types of collectibles can be tokenised, ranging from digital arts, to gaming, music, and films.

**The NFTs market was mushrooming (pumped over 7000% in sales volume since January) in 2021 due to increased attention from the public.** As of 8 December, the total sales volume on NFTs market [surpassed USD 12B](#) and the overall sale counts were [beyond 13M](#).

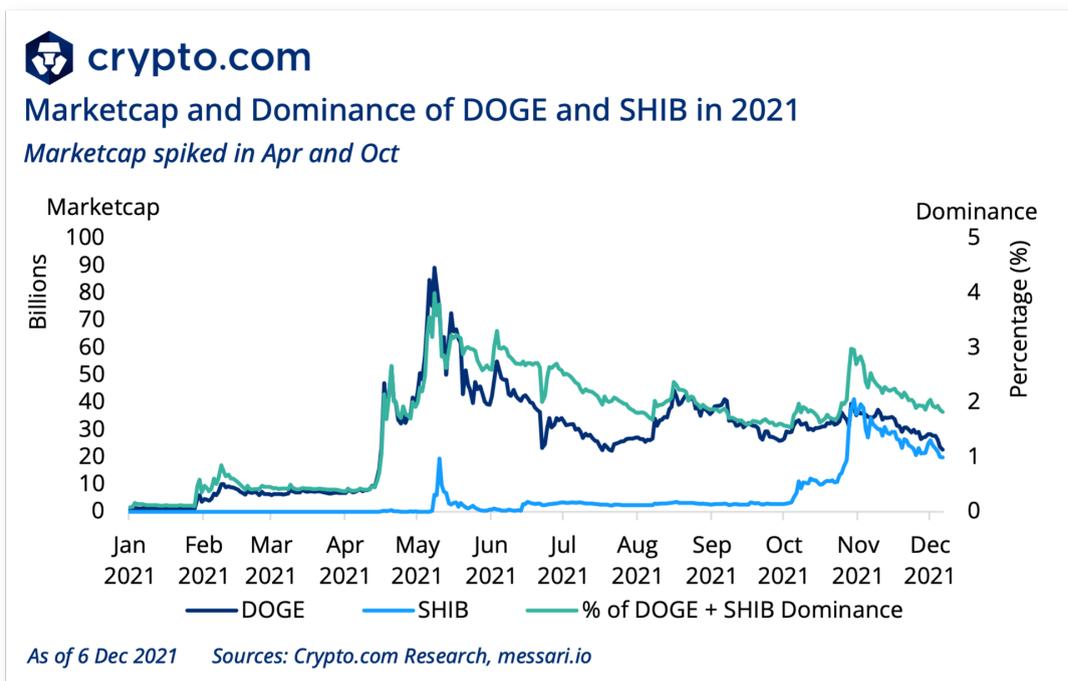


### 3. Memecoins in the Spotlight

Meme coins are cryptocurrencies inspired by memes or jokes on the Internet and social media. They are mainly community-driven and can gain popularity overnight due to online community endorsements.

Some popular meme coins of the dog variety include Dogecoin, Shiba Inu, Dogelon Mars, Samoyedcoin, and Akita Inu. In 2021, the frenzied public interests in crypto had led to an exponential growth and an overall market capitalisation of over \$45B.

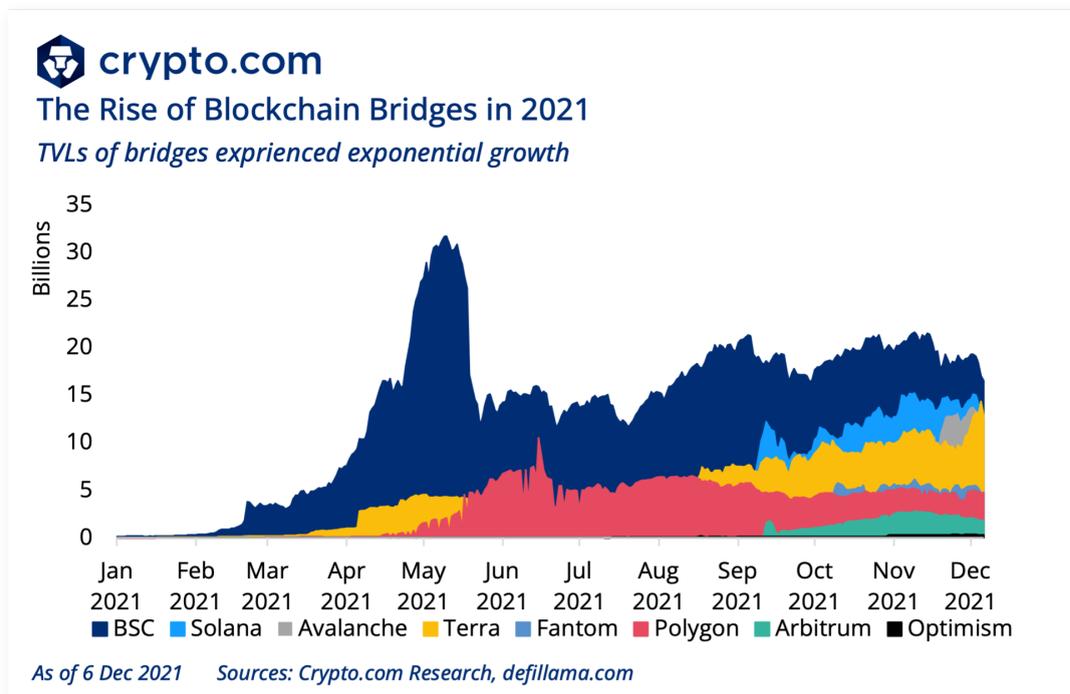
The top two leading meme coins were Dogecoin (DOGE) and its rival Shiba Inu (SHIB). On 8 May 2021, DOGE had gained over 8000% since the start of the year by market capitalisation. Its rival, SHIB, had pumped more than 5000% in terms of token price changes since January. **As of 6 December 2021, their total dominance in the market was beyond 2% according to messari.io.**



## 4. Blockchain Interoperability

What's the coming trend in blockchain? Without doubt, bridges. The interoperability of heterogeneous blockchains to facilitate cross-chain interactions **boosted a jump in development for blockchains in 2021.**

Apart from Ethereum, we saw the rise of Solana, Avalanche, Terra, and Fantom this year with [their TVLs climbing over 500% since January](#). Predictably, the boom of bridge ecosystems will continue. Some other popular projects, such as [BSC](#), [Polygon](#), [Arbitrum](#), and [Optimism](#), can be expected to join the ranks.



## 5. El Salvador

Who would have imagined that Bitcoin would become a legal tender in 2021? Year 2021 marks the start of the crypto-friendly era, and its **most prominent case study is Bitcoin's legal tender by El Salvador**.

On [5 June](#), El Salvador President [Nayib Bukele](#) declared that Bitcoin would become national legal tender. It was not long before [the Bitcoin Law](#) was passed on 9 June and on 24 August, its official Bitcoin wallet – [Chivo](#) – was launched. Interestingly, on [22 November](#), Nayib Bukele announced his government will build an oceanside 'Bitcoin City' at the base of a volcano.

As a small central American country, **El Salvador and its people moved the world**. Furthermore, a \$1B [bitcoin-backed bond](#) is scheduled for early 2022. We expect to see more adoption use cases in the near future.



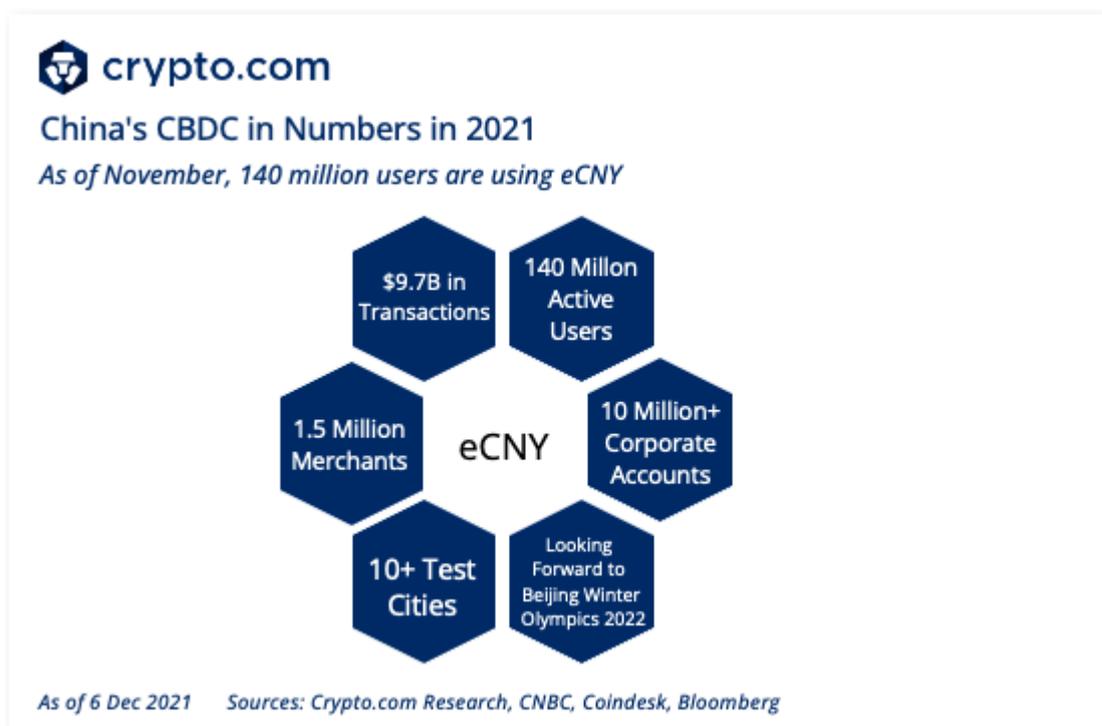
## 6. China Launched CBDC

As the world's second largest economy, China is leading in developing a national digital currency, [which it has been working on since 2014](#).

As of November, **China's CBDC has been used for \$9.7B transactions and 140 million people have opened wallets** for the digital Yuan (eCNY).

The eCNY has been widely adopted in commercialised systems. According to the talk by Mu Changchun, director-general of the digital currency institute of China's central bank, [over 1.5 million merchants accept payments](#) using eCNY wallets now. In addition, [10 million corporate accounts](#) had been created, according to Bloomberg.

China's Ministry of Commerce announced that [more than 10 major cities](#) had tested the usage of eCNY in 2021. We are looking forward to experiencing a wider adoption **during the upcoming Winter Olympic 2022**.



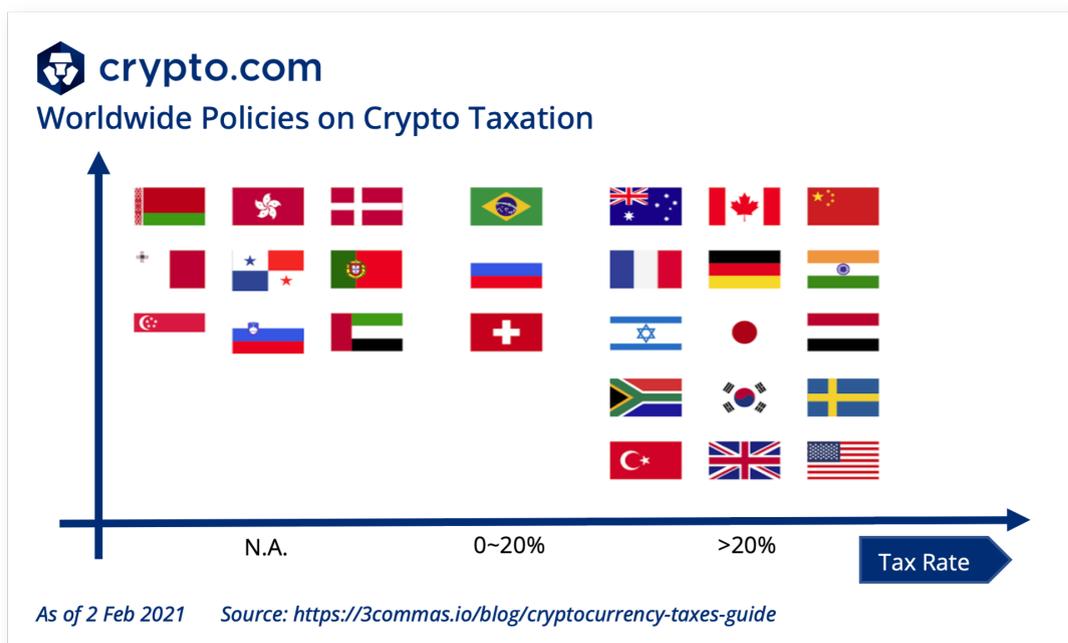
## 7. Regulatory and Taxation Framework Forming

As a pioneering alternative financial system, cryptocurrencies have attracted much worldwide visibility and interest. **Yet, governments around the world remained divided on [how to regulate this emerging asset class](#) in 2021.**

Despite a large number of blockchain investors and corporations established in the United States, [a clear regulatory framework](#) for the crypto-assets is still lacking. The [Securities and Exchange Commission \(SEC\)](#) typically views cryptocurrency as a security, while the [Commodity Futures Trading Commission \(CFTC\)](#) calls Bitcoin a commodity, and the [Treasury](#) calls it a currency. Crypto exchanges in the United States fall under the regulatory scope of the [Bank Secrecy Act \(BSA\)](#) and must register with the [Financial Crimes Enforcement Network \(FinCEN\)](#).

As the second largest economy, China didn't classify cryptocurrencies as legal tender. Even though China's launched CBDC, the [People's Bank of China \(PBOC\)](#) banned crypto exchanges from operating and [Bitcoin mining](#).

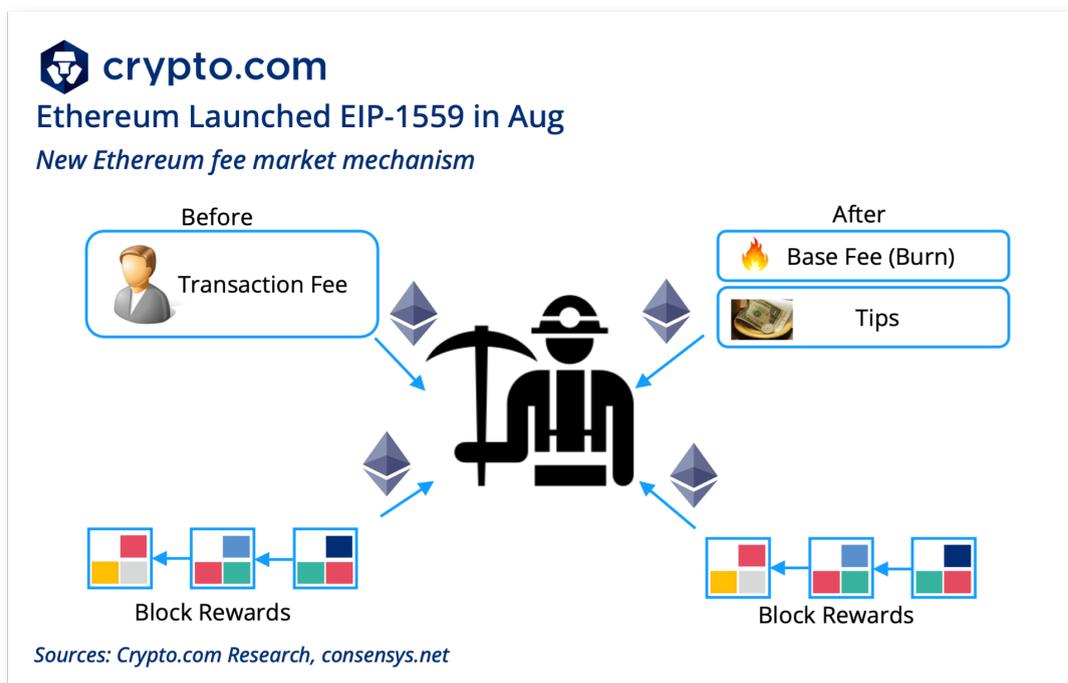
In terms of taxation rules, according to the [Crypto.com Taxation report](#), countries or regions including **UAE, Denmark, Hong Kong, and Singapore were tax-free for cryptocurrencies as of February 2021**. In contrast, the tax rates of other countries ranged from 3% to 45%, respectively.



## 8. Ethereum EIP-1559 and Bitcoin Taproot

[EIP-1559](#) is an 'Ethereum Improvement Proposal' that involves burning a portion of the gas fees on Ethereum transactions to reform the Ethereum fee market.

Fundamentally, EIP-1559 got rid of the [first-price auction](#) as its main gas fee calculator, where transaction senders bid a set amount of gas to pay for their transaction to be processed, and the highest bidder wins. With EIP-1559, there would be a discrete '[base fee](#)' for transactions to be included in the next block. Users who want to prioritise their transaction can add a '[tip](#)', basically a 'priority fee' to pay a miner for faster confirmation.

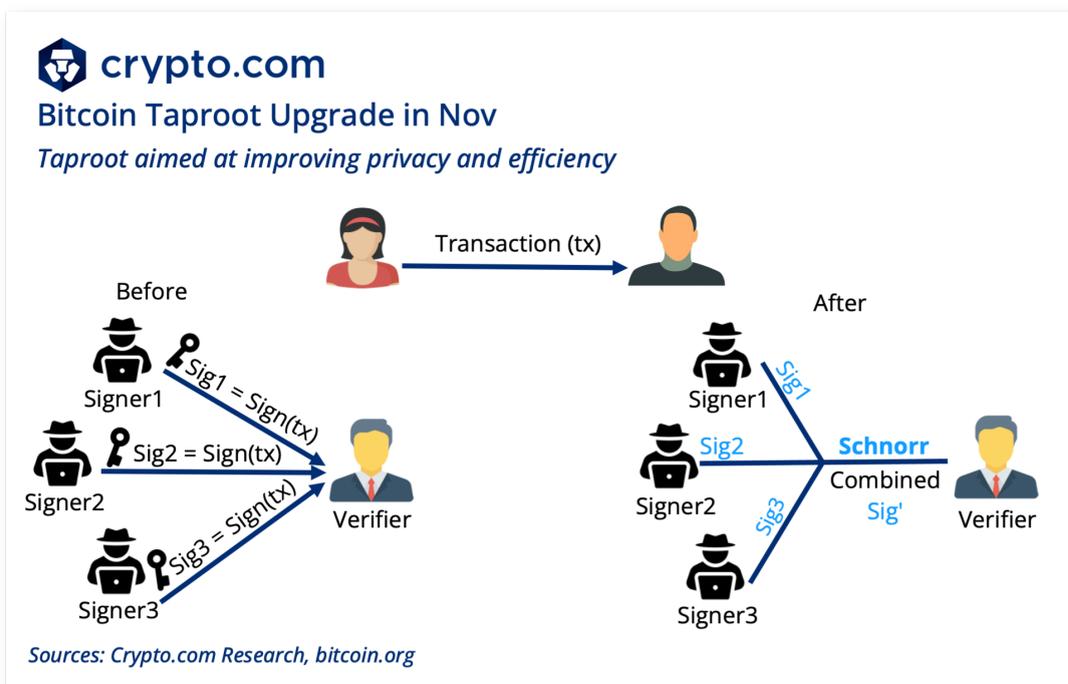


[EIP-1559](#) was arguably Ethereum's most anticipated update since the launch of [Ethereum 2.0](#) that improved the user experience of the network by eliminating fee estimates.

Similarly, on 14 November 2021, [Bitcoin was soft-forked with an upgrade in 2017, named 'Taproot'](#). The concept of multisig (also known as [multi-signature](#)) was adopted in the current Bitcoin system, i.e. are the requirement for a transaction to be verified two or more signatures before it can be executed. Before the Taproot upgrade, Bitcoin leveraged the [Elliptic Curve Digital Signature Algorithm \(ECDSA\)](#)

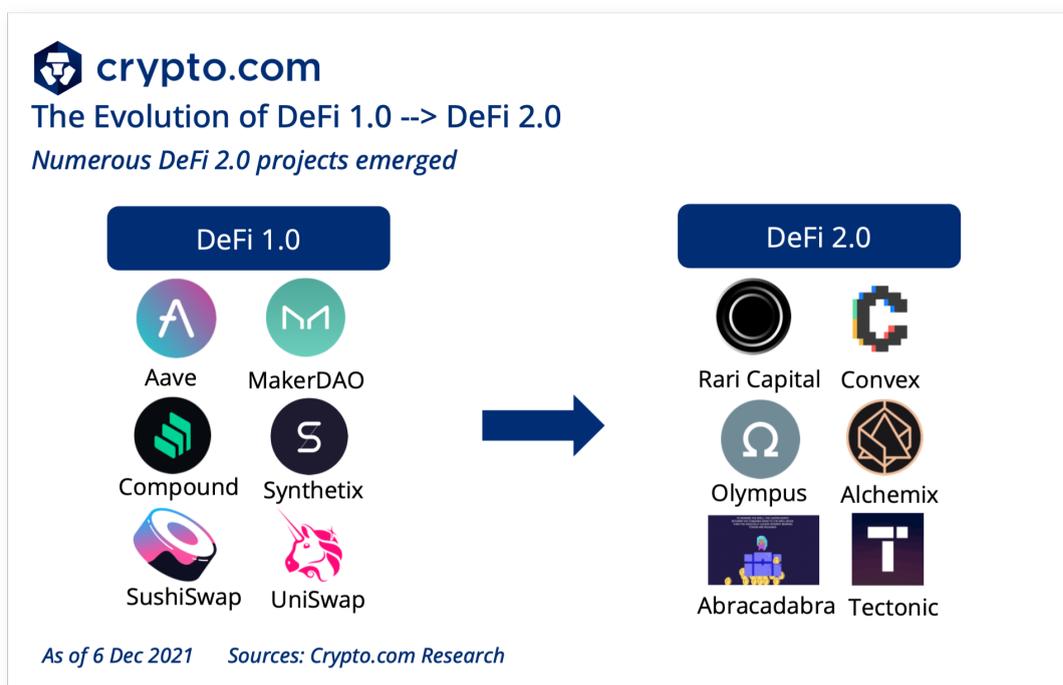
allowing multiple signers in the system to sign a transaction and generate the individual signatures. However, the current scheme lacks anonymity protection for signers as verifiers who validate multiple ECDSA signatures could be aware of the identity of each signer. **The Taproot upgrade took this design a step further with the adoption of the Schnorr Signature Algorithm.** It combines and compresses multiple signers' signatures into **one single signature**. The individual signer in such a transaction gains more anonymity as the transaction is represented by only one signature.

In addition to improved privacy for every signer, the Schnorr algorithm can be used to significantly reduce the size of multisig transactions. Therefore, it not only makes transactions more private and secure, but also trims the size of transaction data, enhancing efficiency in execution. In conclusion, Taproot is a step in the right direction, and doesn't turn Bitcoin into a [private or anonymous network](#).

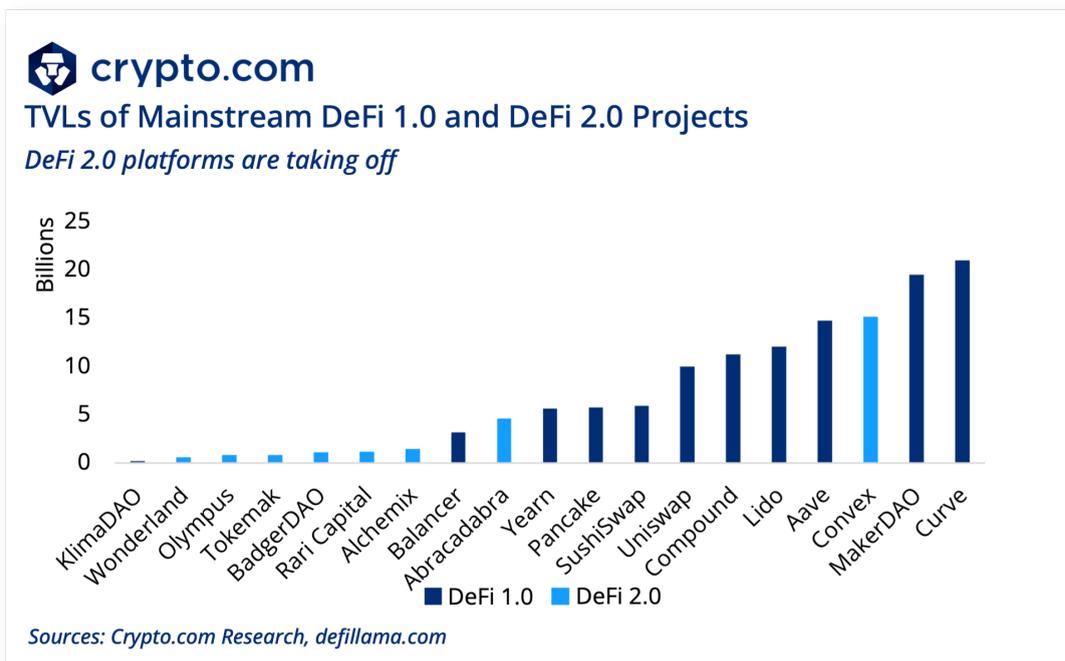


## 9. From DeFi 1.0 to DeFi 2.0

Whereas DeFi 1.0 gave people liquidity mining ([Compound](#), [Aave](#)), lending power ([MakerDAO](#)), and AMMs ([Uniswap](#), [Sushiswap](#)), DeFi 2.0 promises to [improve the user experience, introduce new finance technologies, and improve capital utilisation.](#)



**In DeFi 2.0, the platforms advocate a [closer connection between users](#), and we see the entire ecosystem exploding with more vitality and driving force, so as to always keep the [liquid mining pools sufficiently active to participate](#). Moreover, in contrast to DeFi 1.0, all [the governance and decision-making rights were given to community members](#).**

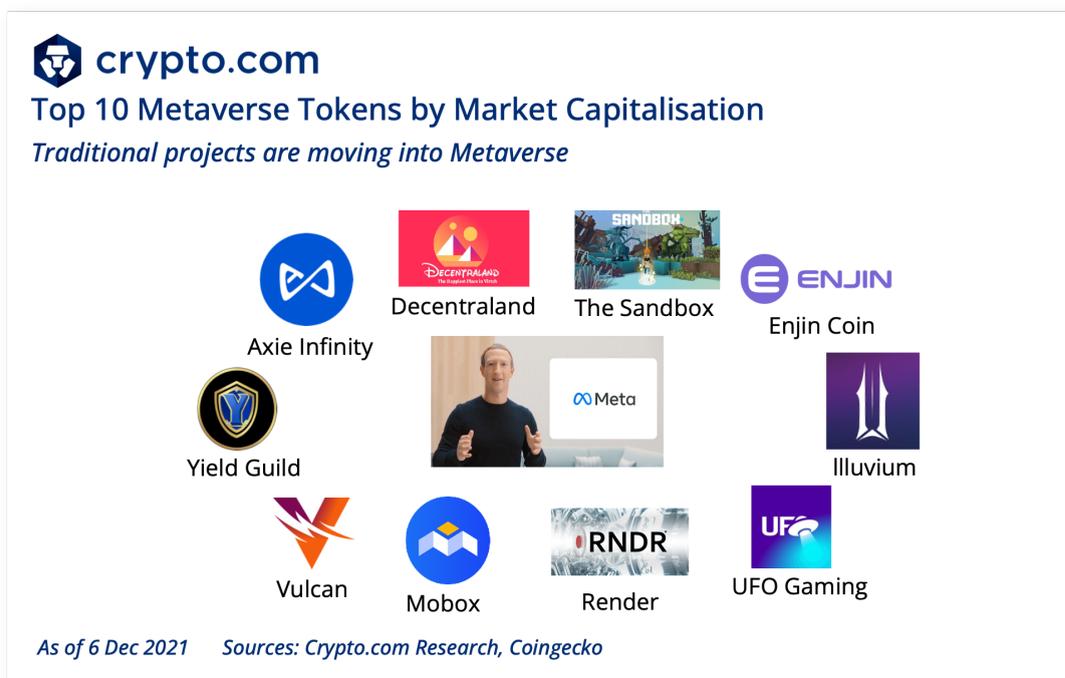


As of December 2021, numerous promising DeFi 2.0 projects have been launched. Some prominent examples included [Convex Finance](#), [Abracadabra](#), [Alchemix](#), [Olympus](#), and [Rari Capital](#). Their [TVLs](#) are expected to take off in 2022.

## 10. The Metaverse

On 28 October 2021, Facebook renamed itself to [Meta, with the goal to bring the Metaverse to life and helped people connect, find communities, and grow businesses](#). As NFTs are able to facilitate virtual identity, they are [bridges to the Metaverse world](#).

The Metaverse will feel like a hybrid of today's online social experiences, but expanded into three dimensions, projected into the physical world. Many metaverses rely on [internal tokens](#) that can be bought, sold, exchanged, earned, or even created by the users themselves.



As of 6 December, numerous metaverse-theme tokens had been created and the top five projects by market cap are Axie Infinity ([AXS](#)), Decentraland ([MANA](#)), The Sandbox ([SAND](#)), Enjin Coin ([ENJ](#)), and Illuvium ([ILV](#)). Their total market cap stood at [over \\$28B](#).

Projects	Launched Date	Tokens	Market cap (USD)	Market cap dominance	Volume/cap	Deployed Blockchain
Axie Infinity	Mar 2018	AXS	6.94B	0.28%	0.043	Ethereum, Ronin
Decentraland	Feb 2020	MANA	5.02B	0.20%	0.212	Ethereum, Polygon
The Sandbox	2022	SAND	4.82B	0.19%	0.187	Ethereum, Polygon
Enjin Coin	Jun 2018	ENJ	2.61B	0.11%	0.117	Ethereum
Illuvium	2022	ILV	836M	0.03%	0.058	Ethereum

As of 6 Dec 2021 Sources: Crypto.com Research, Coingecko

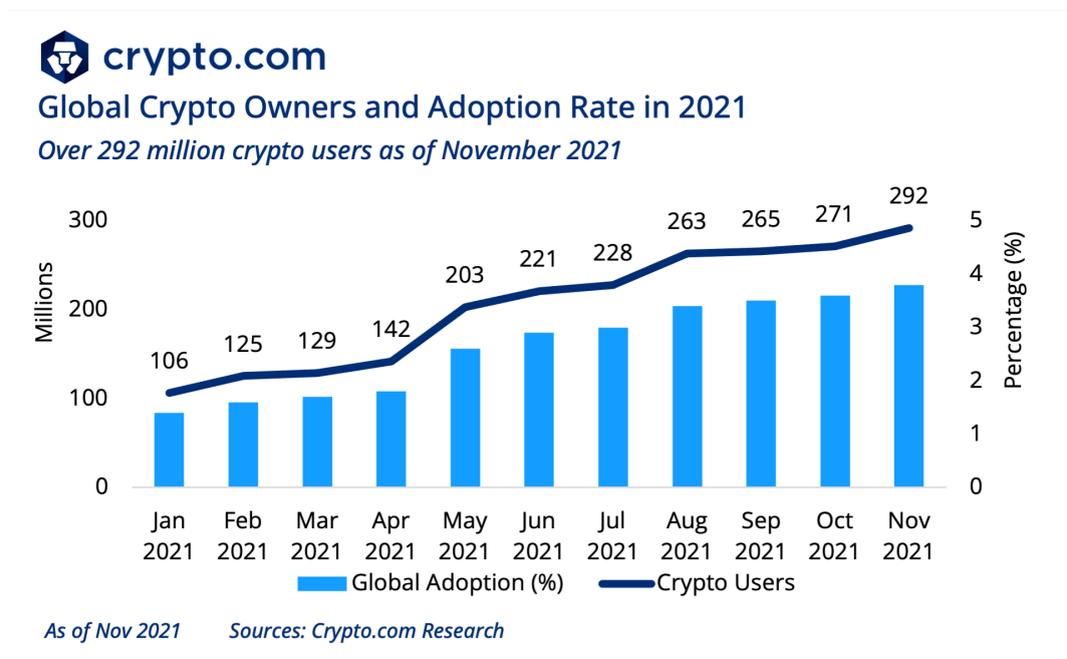
# Year 2022 Ahead

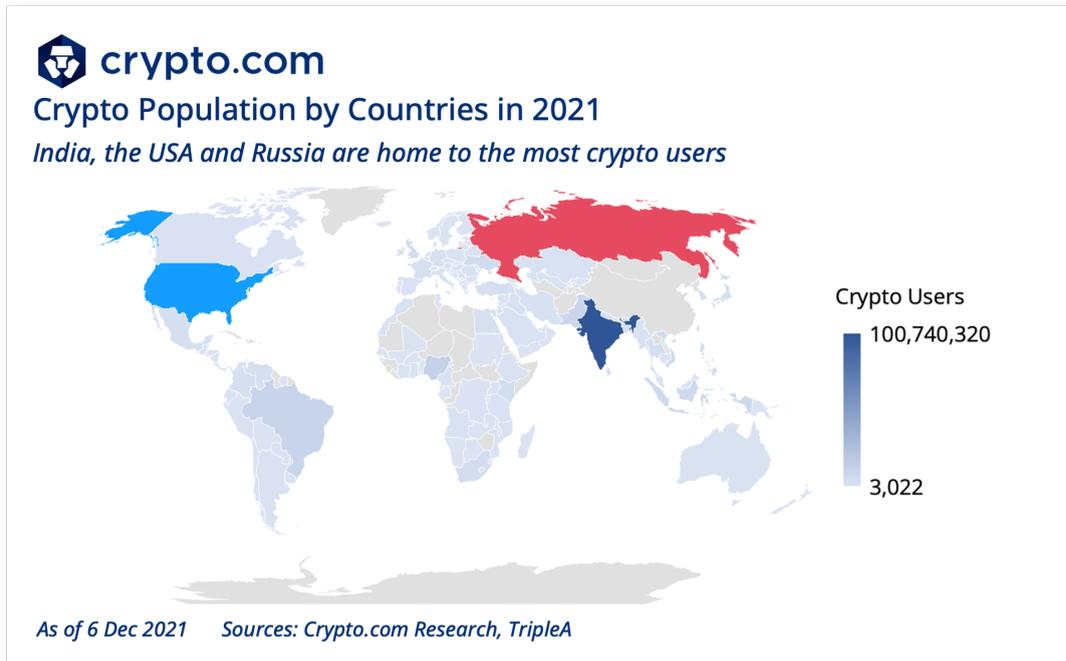
## 1. Global Crypto Users Reach 1 Billion by the End of 2022

Nations can no longer afford to ignore the growing push toward crypto by the public. We may in many cases expect a friendlier stance towards the crypto industry:

- We expect developed nations to devise clear legal and taxation frameworks for crypto assets
- In parallel, more nations facing a highly inflationary economy & depreciating currency may adopt cryptocurrency as legal tender, following the example of El Salvador

According to [Crypto.com research](#), there were over 292 million crypto users worldwide as of 30 November 2021. Based on [data by TripleA](#), more than 18,000 businesses are already accepting cryptocurrency payments. In particular, India (100M), the U.S. (27M) and Russia (17M) were the largest crypto population countries.





## 2. Cryptocurrency Becomes a Staple in TradFi Investment Portfolios

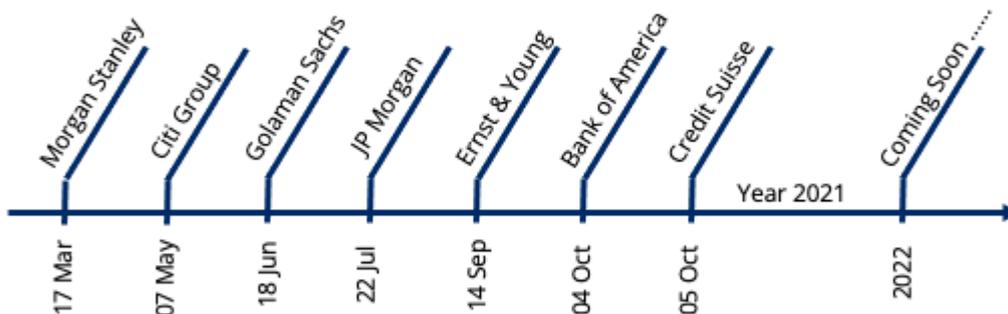
Crypto will become a fixture in the alternative asset class for investment portfolios. The first crypto ETFs launched this year were met with demand beyond their capacity, suggesting that more crypto instruments in the mainstream finance industry will soon follow.

- Bitcoin and Ethereum spot ETFs like Valkyrie’s received approval earlier this year
- **Traditional banks and financial houses** like [Morgan Stanley](#), [Citi](#), [Goldman Sachs](#), [JP Morgan](#), [E&Y](#), [Bank of America](#), and [Credit Suisse](#) are seeking partnerships with crypto exchanges to integrate crypto into their main services from payments to transfers and investment



### Institutional Adoption of Crypto in 2021

*Traditional banks and financial houses are seeking adoption of Crypto*



As of 6 Dec 2021 Sources: Crypto.com Research, CNBC, FT, Coindesk, Reuters, EY, BofA

### 3. GameFi Fuels Crypto Adoption by the Public

The Metaverse has grown exponentially in 2021, leading the way for evolution in online culture through NFTs, gaming, and online identities. It is crystallising as the gateway for crypto adoption by non-natives.

- **We predict GameFi/Play-to-Earn to be one of the main vehicles** for mass conversion to the crypto space, with traditional game studios racing to incorporate these elements into their existing line-ups
- As Web 2.0 tech giant Facebook, now Meta, peers into the metaverse and uses it as a venue for monetisation, we expect more to follow
- NFTs collectibles are booming, with NFT profile pictures as a stepping stone between the Metaverse and the real world as the space matures



## 4. Cross-chain Protocols Become the Norm

On the technical side of things, the crypto industry will have to scale fast to meet its exponential demand. Cross-chain DeFi protocols will become the norm, paving the way for a multi-chain future of replacing the siloed chains of the past.

- Interoperability solutions (e.g. [bridging](#)) are becoming more seamless; projects will become increasingly chain-agnostic on where they should launch their offering, ending the dominance of Ethereum
- Significant improvement in the technology & user experience of Layer 2 solutions (e.g. [side-chains](#) and [roll-ups](#)) will alleviate the scalability concerns of the incumbent Layer 1



**Existing Bridges in the Market**  
Over 40 bridge projects were launched

Asset-specific	Chain-specific	Apps-specific	Generalised
 EverBridge	 Avalanche	 Anyswap	 Chainlink
 Interlay	 Binance	 Celer	 Chainsafe
 Wrapped	 Harmony	 Liquidity	 Movr
	 Polygon	 Ren Ren	 Orbit
	 Rainbow	 THOR	 PolyNetwork
	 Polkadot	 WanChain	
	 TokenBridge		

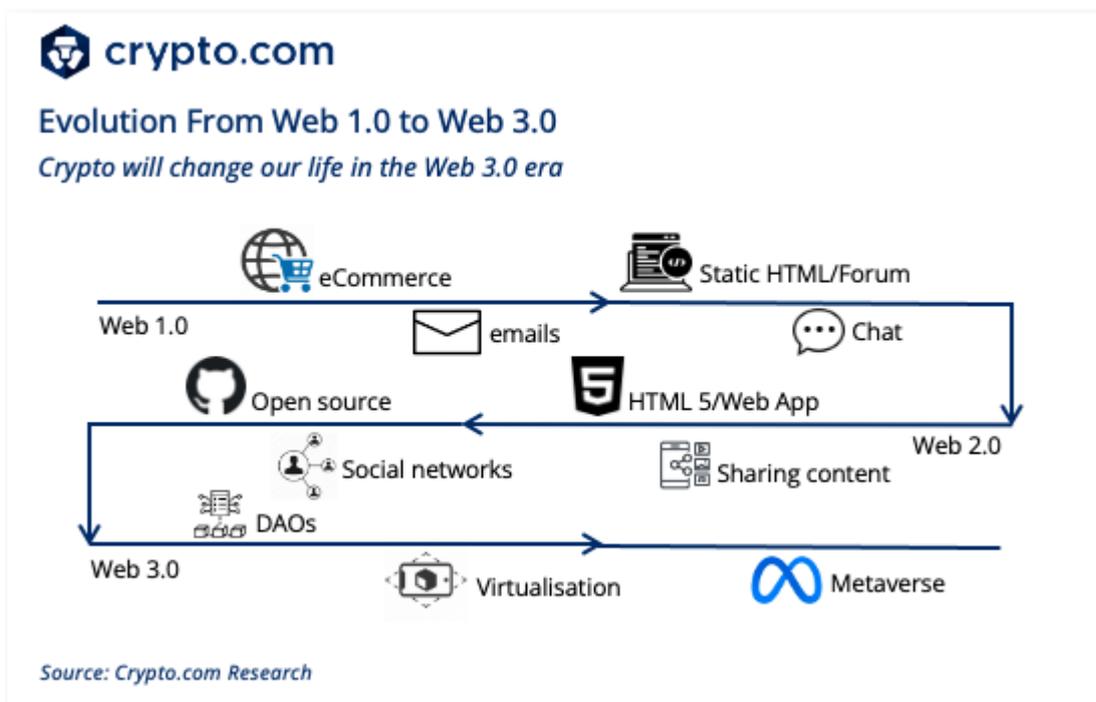
More... 

*As of 6 Dec 2021 Sources: Crypto.com Research, Medium*

## 5. Through DAOs, Crypto Changes the Way We Work

In [the era of Web 3.0](#), we will see the influence & outreach of decentralised autonomous organisations (DAOs) expanding significantly beyond the crypto space, and becoming a widely accepted governance mechanism.

- Specific-purpose and identity-based DAOs will become more common as a vehicle for people with the same goals & vision
- More jurisdictions will provide a clear legal framework and accept DAOs as legal entities



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